

## REMARKS

By the foregoing amendments claims 1-16 have been cancelled subject to Applicant's right to file a divisional application to the non-elected invention as set forth in the Office Action of November 24, 2009. Claim 25 has been cancelled and claims 17-24 and 26-31 have been amended. Thus, claims 17-24 and 26-31 remain in the application with entry of the amendments.

The December 16, 2010 e-mail from Examiner Javier Blanco is acknowledged. A copy of the e-mail is enclosed as Exhibit 1. In the e-mail, the Examiner proposed an amendment to claim 17 in order to place the application in condition for allowance. By an e-mail of December 22, 2010, after consultation with Applicant, the undersigned indicated Applicants acceptance of the Examiners proposal although two changes therein were proposed as indicated in the attached Exhibit 1. The outstanding Office Action of December 22, 2010 was issued apparently before the Examiner could consider Applicant's response to the December 16, 2010 proposal. However, by the above amendments many of the limitations proposed by the Examiner in the December 16, 2010 proposal have been made in claim 17 along with additional limitations which are believed to patentably define the claims over the cited references as discussed below.

Claims 17-20, 25, 26, 28 and 30 were rejected in the outstanding Office Action under 35 U.S.C. § 102(b) as being clearly anticipated by Atkinson, et al., U.S. 2002/0087216 A1 as stated on pages 2 and 3 of the Office Action.

Claims 17-23, 25-27 and 30 were rejected in the Office Action under 35 U.S.C. § 102(b) as being clearly anticipated by Fikes, U.S. 4,911,724, as stated on pages 3 and 4 of the Office Action.

Claim 31 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over either Atkinson, et al. or Fikes for the reasons and in the manner set forth on pages 4 and 5 of the Office Action.

These rejections are hereby traversed and reconsideration thereof is respectfully requested in view of the above amendments to the claims and the remarks set forth below.

The improved prosthetic foot/resilient lower extremity prosthesis of the present invention has been further defined in claim 17 as amended as comprising a foot keel extending in a longitudinal direction, a resilient ankle, and an elongated, upstanding resilient calf shank above the ankle. The ankle and calf shank are monolithically formed as a continuous resilient member. The calf shank extends upward in a substantially anterior facing convexly curvilinear manner over at least most of the height of the shank above the ankle. The ankle is anterior facing convexly curved and extends upwardly anteriorly from a lower portion of the ankle secure to the foot keel and extending posteriorly to a lower end of a resilient member. The resilient member flexes in the longitudinal direction during gait for storing and releasing energy to improve dynamic response of the prosthetic foot in gait. At least one artificial muscle is provided on at least one of the foot, ankle and shank of the prosthetic foot for storing energy during force loading of the prosthesis foot in the active propulsion phase of a person's gait and in the later stages of stance-phase of gait releasing said energy to aid propulsion to

the person's trailing limb and body. The at least one artificial muscle includes an artificial muscle extending between an upper portion of the calf shank and a lower part of the prosthetic foot. The improved dynamic response of the prosthetic foot of the invention is discussed in detail in the application specification. The prosthetic foot of the invention is not anticipated, 35 U.S.C. § 102, or rendered obvious, 35 U.S.C. § 103, by the cited references.

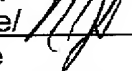
The prosthesis in Atkinson, Figures 11 and 12 is formed by a straight pylon 452 which is connected or integral at its lower end with an essentially C-shaped ankle 412. Atkinson does not employ a resilient calf shank which is anterior facing convexly curved over at least most of the height of the shank above the ankle as in the present invention as recited in the claims as amended. Fikes employs an L-shaped shin member 11 with a resilient vertical member 14 and a horizontally extending elliptical base member 12 extending anteriorly from the lower end of the vertical member 14 as shown in the drawings in Fikes. Fikes does not teach or suggest the ankle of the present invention which is anterior facing convexly curved and extending upwardly anteriorly from a lower portion of the ankle secured to the foot keel and extending posteriorly to a lower end of the resilient member. The lower ankle portion, shown at 22 in Figure 2, is posterior facing convexly curved and extends upwardly posteriorly from elliptic base member 12 secured to the foot member 30.

In view of the above amendments and remarks, it is respectfully submitted that claims as amended patentably define over the cited references under 35 U.S.C. § 102 and 103. Accordingly, reconsideration and allowance of the claims 17-24 and 26-31 is requested.

A Petition for Extension of Time is filed herewith to permit the timely filing of this amendment within the three month extension of time. A Request for Continued Examination is filed herewith to require consideration of the amended claims.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (Case No. 183.43731AX0) and please credit any excess fees to such deposit account.

Respectfully submitted,

/Ronald J. Shore/   
Ronald J. Shore  
Registration No. 28,577  
ANTONELLI, TERRY, STOUT & KRAUS, LLP

RJS/kmh  
Enclosure: Exhibit 1

# **EXHIBIT 1**

**Ronald Shore**

**From:** Blanco, Javier (AU3774) [Javier.Blanco@USPTO.GOV]  
**Sent:** Thursday, December 16, 2010 4:24 PM  
**To:** Ronald Shore  
**Subject:** Examiner's Amendment for Application Number 10/594,796 (attorney docket number 183.43731AX0)  
**Importance:** High

Good evening Attorney Shore,

Below is a proposed Examiner's Amendment for Application Number **10/594,796** (attorney docket number **183.43731AX0**) in order to place this application in condition of allowance.

I would like to handle this case by next Wednesday (December 22), at the latest. I will be out on vacation starting December 24th.

Have a great evening, and my regards to Mr. Townsend!

Javier

Claims 1-16 have been cancelled.

Claim 17 (Currently Amended) A ~~[[resilient lower extremity prosthesis]]~~ **prosthetic foot** comprising:

a foot **keel** extending in a longitudinal direction;

a resilient ankle;

an elongated, upstanding, resilient **calf** shank above the ankle;

wherein the ankle and shank are **monolithically** formed as a **continuous** resilient member, the shank extending upward in a substantially anterior facing convexly curvilinear manner above the ankle, the ankle being anterior facing convexly curved and having a **downwardly convexly curved** lower portion ~~[[with a posterior terminal end]]~~ **secured to the foot keel and extending posteriorly to a free end**, the resilient member flexing in the longitudinal direction during gait for storing and releasing energy to improve dynamic response of the prosthesis in gait;

~~[[an]]~~ **at least one** artificial muscle provided on at least one of the foot, ankle and shank of the prosthesis for storing energy during force loading of the prosthesis in the active propulsion phase of a person's gait and in the later stages of stance-phase of gait releasing said energy to aid propulsion of the person's trailing limb and body,

**wherein said at least one artificial muscle includes an artificial muscle extending between an upper portion of the calf shank and a lower portion of the prosthetic foot, and an artificial muscle provided on a plantar region of the foot keel.**

6/22/2011